Docket No.: 01-46 US

IN THE CLAIMS:

The following listing of claims replaces all prior versions or listings of claims pending in the application:

1. (currently amended) A method of NMR measurement comprising the steps of:

providing an NMR probe including a flow cell and an inlet tubing connected to said flow cell;

providing a heater comprising tightly and helically wrapping a twisted-pair wire wrapped around a length of said inlet tubing forming a double twist thereto and connecting said twisted-pair wire to a power supply;

directly heating a sample liquid passing via said inlet tubing to said flow cell by causing an electric current to pass through said twisted-pair wire-to thereby generate heat and distributing heat evenly along said inlet tubing;

injecting said liquid sample into said flow cell, said sample liquid having a pre-heated temperature comparable to the temperature within said flow cell; and

collecting NMR data to analyze said sample liquid within causing a specified amount of a sample liquid to pass through said inlet tubing into said flow cell of said NMR probe, whereby said sample liquid is preheated before reaching said flow cell.

- 2.(currently amended) The method of claim 1, further comprising the step of generating a homogeneous magnetic field around said NMR probe.
- 3. (currently amended) The method of claim 1, further comprising the steps of monitoring the temperature at said inlet tubing and controlling said electric current according to said monitored temperature so as to for maintaining said input tubing at a specified-temperature-level comparable to the temperature within said flow cell.
- 4. (currently amended) The method of claim 2, further comprising the steps of monitoring the temperature at said inlet tubing and controlling said electric current according to said monitored temperature so as to for maintaining said input tubing at a specified temperature level comparable to the temperature within said flow cell.

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- 5. (currently amended) The method of claim 3, further comprising the step of selecting said specified temperature of said input tubing level according to said specified an amount of said sample liquid in order to minimize the time taken by said sample liquid to reach thermal equilibrium.
- 6. (currently amended) The method of claim 4, further comprising the step of selecting said specified-temperature of said input tubing level-according to said specified an amount of said sample liquid in order to minimize the time taken by said sample liquid to reach thermal equilibrium.
- 7. (currently amended) An apparatus for NMR measurement comprising:

 an NMR probe including a flow cell and an inlet tubing connected to said flow cell;

 a heater having a twisted-pair wire tightly and helically wound around a length of said inlet tubing forming a double twist thereto;

an electric power source for causing an electric current to pass through said twisted-pair wire to thereby generate heat; and

means for causing a sample liquid to pass through said inlet tubing into said flow cell of said NMR probe, wherein said sample liquid is preheated directly by the heat from said heater prior to reaching said flow cell.

- 8. (original) The apparatus of claim 7, further comprising means for providing a homogeneous magnetic field around said NMR probe, wherein said electric current through said twisted-pair wire does not disturb said homogeneous magnetic field.
- 9. (original) The apparatus of claim 7, further comprising means for monitoring the temperature at said inlet tubing and controlling said electric current according to said monitored temperature.
- 10. (original) The apparatus of claim 8, further comprising means for monitoring the temperature at said inlet tubing and controlling said electric current according to said monitored temperature.